WHAT IS CLAIMED IS:

1. An organic electroluminescent device in which an organic thin film layer comprising a single layer or plural layers comprising a phosphorescence light-emitting layer containing at least a host material and a phosphorescent organic metal complex is interposed between a cathode and an anode, wherein the total of halogen element mass concentrations of bromine, iodine and chlorine which are contained as impurities in the host material constituting the light-emitting layer described above is 50 ppm or less.

2. An organic electroluminescent device in which an organic thin film layer comprising a single layer or plural layers comprising a phosphorescence light-emitting layer containing at least a host material and a phosphorescent organic metal complex is interposed between a cathode and an anode, wherein the total of halogen element mass concentrations of bromine and iodine which are contained as impurities in the host material constituting the light-emitting layer described above is 40 ppm or less.

3. An organic electroluminescent device in which an organic thin film layer comprising a single layer or plural layers comprising a phosphorescence light-emitting layer containing at least a host material and a phosphorescent organic metal complex is interposed between a cathode and an anode, wherein a halogen element mass concentration of bromine which is contained as an impurity in the host material constituting the light-emitting layer described above is 30 ppm or less.

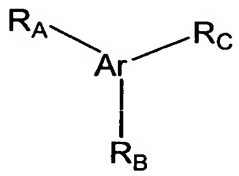
4. The organic electroluminescent device as described in claim 1, wherein the total of halogen element mass concentrations of bromine, iodine and chlorine is 5 ppm or less.

5. The organic electroluminescent device as described in any of claims 1 to 4, wherein a lower limit of the total of the halogen element mass concentrations described above is 1 ppb.

6. The organic electroluminescent device as described in any of claims 1 to 3, wherein the light-emitting layer described above contains at least one selected from phosphorescent organic metal complexes and at

least one selected from aromatic hydrocarbon compounds and aromatic heterocyclic compounds.

7. The organic electroluminescent device as described in claim 6, wherein the aromatic hydrocarbon compound and the aromatic heterocyclic compound each described above each have a structure represented by the following Formula (1):



(1)

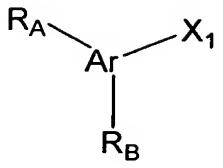
wherein Ar represents a substituted or non-substituted trivalent aromatic hydrocarbon group having 6 to 30 ring carbon atoms or a substituted or non-substituted trivalent aromatic heterocyclic group having 3 to 20 ring carbon atoms; R_A, R_B and R_C each represent independently a substituted or non-substituted aromatic hydrocarbon group having 6 to 30 ring carbon atoms, a substituted or non-substituted aromatic heterocyclic group having 3 to 20 ring carbon atoms or a substituted or non-substituted amino group; R_A, R_B and R_C each may be the same or different, and adjacent ones may be combined with each other.

8. The organic electroluminescent device as described in claim 6, wherein the aromatic hydrocarbon compound and the aromatic heterocyclic compound each described above each have a structure represented by the following Formula (2):

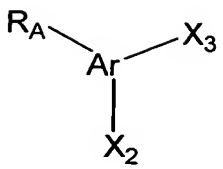
$$R_A—Ar'—R_B \qquad (2)$$

wherein Ar' represents a substituted or non-substituted divalent aromatic hydrocarbon group having 6 to 30 ring carbon atoms or a substituted or non-substituted divalent aromatic heterocyclic group having 3 to 20 ring carbon atoms; R_A and R_B each represent independently a substituted or non-substituted aromatic hydrocarbon group having 6 to 30 ring carbon atoms, a substituted or non-substituted aromatic heterocyclic group having 3 to 20 ring carbon atoms or a substituted or non-substituted amino group, and R_A and R_B each may be the same or different.

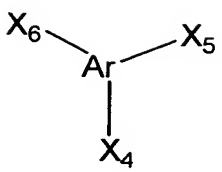
9. The organic electroluminescent device as described in any of claims 1 to 3, wherein halides containing the halogen elements described above have at least one structure represented by the following Formulas (3) to (5):



(3)



(4)



(5)

wherein Ar represents a substituted or non-substituted trivalent aromatic hydrocarbon group having 6 to 30 ring carbon atoms or a substituted or non-substituted trivalent aromatic heterocyclic group having 3 to 20 ring carbon atoms; R_A and R_B each represent independently a substituted or non-substituted aromatic hydrocarbon group having 6 to 30 ring carbon atoms, a substituted or non-substituted aromatic heterocyclic group having 3 to 20 ring carbon atoms or a substituted or non-substituted amino group; R_A, R_B and R_C each may be the same or different;

in Formula (3), X_1 represents a halogen atom;

in Formula (4), one of X_2 to X_3 represents a halogen atom, and the remainder represents a halogen atom or a hydrogen atom;

in Formula (5), at least one of X_4 to X_6 represents a halogen atom, and the remainder represents a halogen atom or a hydrogen atom; and

provided that when X_2 to X_6 are hydrogen atoms, Ar is reduced in a valency according to the number of the

hydrogen atoms; and when two or more of X_2 to X_3 or X_4 to X_6 are halogen atoms, they may the same atom.

10. The organic electroluminescent device as described in any of claims 1 to 3, wherein halides containing the halogen elements described above have structures represented by the following Formulas (6) and/or (7):

$R_A—Ar'—X_1$ (6) $X_2—Ar'—X_3$ (7)

wherein Ar' represents a substituted or non-substituted divalent aromatic hydrocarbon group having 6 to 30 ring carbon atoms or a substituted or non-substituted divalent aromatic heterocyclic group having 3 to 20 ring carbon atoms; R_A each represents independently a substituted or non-substituted aromatic hydrocarbon group having 6 to 30 ring carbon atoms, a substituted or non-substituted aromatic heterocyclic group having 3 to 20 ring carbon atoms or a substituted or non-substituted amino group;

in Formula (6), X_1 represents a halogen atom;

in Formula (7), one of X_2 to X_3 represents a halogen atom, and the remainder represents a halogen atom or a hydrogen atom;

provided that when X_2 to X_3 are hydrogen atoms, Ar' is reduced in a valency according to the number of the

hydrogen atoms; and when two or more of X_2 to X_3 are halogen atoms, they may the same atom.

11. The organic electroluminescent device as described in claim 7, wherein in Formula (1), Ar is benzenetriyl, pyridinetriyl, pyrimidinetriyl or triazinetriyl.

12. The organic electroluminescent device as described in claim 8, wherein in Formula (2), Ar' is phenylene, biphenylene, pyridinediyl, pyrimidinediyl or triazinediyl.

13. The organic electroluminescent device as described in claim 7, wherein the phosphorescence light-emitting layer described above contains the aromatic hydrocarbon compound having the structure represented by Formula (1) described above.

14. The organic electroluminescent device as described in claim 8, wherein the phosphorescence light-emitting layer described above contains the aromatic hydrocarbon compound having the structure represented by Formula (2) described above.

15. The organic electroluminescent device as described in claim 9, wherein the phosphorescence light-emitting layer described above contains the halide having at least one structure represented by Formulas (3) to (5) described above.

16. The organic electroluminescent device as described in claim 10, wherein the phosphorescence light-emitting layer described above contains the halides having the structures represented by Formulas (6) and/or (7) described above.

17. The organic electroluminescent device as described in any of claims 1 to 3, wherein the halogen element mass concentration described above is identified by inductively coupled plasma-mass spectrometry (ICP-MS analysis) or a coulometric titration method.

18. The organic electroluminescent device as described in any of claims 1 to 3, wherein a halogen element mass concentration of at least one halide contained in a material constituting a hole transporting layer, an electron transporting layer or a hole blocking layer which is adjacent to the light-

emitting layer is 20 ppm or less.

19. A material for an organic electroluminescent device, wherein the halogen element mass concentrations of bromine, iodine and chlorine as impurities are identified respectively by inductively coupled plasma-mass spectrometry (ICP-MS analysis) or a coulometric titration method.

20. The material for an organic electroluminescent device as described in claim 19, wherein the halogen element mass concentration described above is 1 ppb to 50 ppm.

21. The material for an organic electroluminescent device as described in claim 19, wherein a halogen element mass concentration of bromine as an impurity is 30 ppm or less.

22. A phosphorescent organic metal complex, wherein the total amount of the halogen element mass concentrations of bromine, iodine and chlorine as impurities which are identified by inductively coupled plasma-mass spectrometry (ICP-MS analysis) or a coulometric titration method is 1 ppb to 5 ppm.

23. A host material for an organic electroluminescent device, the total amount of the halogen element mass concentrations of bromine, iodine and chlorine as impurities which are identified by inductively coupled plasma-mass spectrometry (ICP-MS analysis) or a coulometric titration method is 1 ppb to 5 ppm.

24. An organic electroluminescent device in which an organic thin film layer comprising a single layer or plural layers comprising a phosphorescence light-emitting layer containing at least a host material and a phosphorescent organic metal complex is interposed between a cathode and an anode, wherein the light-emitting layer described above is formed by using the phosphorescent organic metal complex as described in claim 22 and the host material as described in claim 23.